

REMARKS

Applicants have received and carefully reviewed the Office Action mailed on November 21, 2007. Currently, claims 1-15 and 17-22 remain pending. Claims 1-15 and 17-22 have been rejected. In this amendment, claims 1 and 14 have been amended. No new matter has been added. Favorable consideration of the following remarks is respectfully requested.

Rejections under 35 U.S.C. § 112

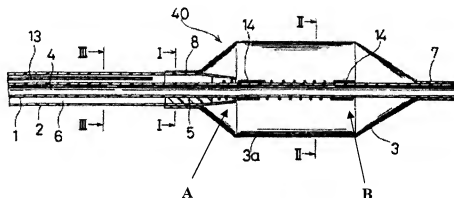
Claim 14 was rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. The Office Action states that there is insufficient antecedent basis for “the inner surface” recited in claim 14. In response to the rejection, claim 14 has been amended to recite “wherein the reinforcing sleeve has an inner surface”. As such, claim 14 is believed to have sufficient antecedent basis and Applicants request withdrawal of the rejection.

Rejections under 35 U.S.C. § 102

Claims 1-4, 6-11, 14-15, 17-19 and 21-22 stand rejected under 35 U.S.C. §102(b) as being anticipated by Sagae, U.S. Patent No. 5,176,637. After careful review, Applicants respectfully disagree.

Claim 1 recites the structural limitation of the association between the reinforcing sleeve and the tubular member that “the distal portion of the reinforcing sleeve extends into the inflation cavity with at least a portion of the tubular member slidably disposed through the lumen of the reinforcing sleeve.” In formulating the rejection of claim 1, the inner tube (1) of Sagae is being equated to the claimed “tubular member” and the reinforcing member (14) of Sagae is being equated to the claimed “reinforcing sleeve”. In responding the Applicants’ previously submitted remarks that Sagae does not disclose a tubular member that is slidably disposed through the reinforcing member, it is asserted in the Office Action that the reinforcing member (14) of Sagae is “preferably made of a coil spring” and that “if the inner tubular member (1) was pushed in the distal direction the coil spring would stretch and the inner tubular member would slide relative to the coil spring.” Office Action, November 21, 2007, at page 5. Applicants respectfully disagree with this assertion.

To supplement Applicants' position, FIG. 1 of Sagae is reproduced below including reference to two locations of the catheter referred to as Point A and Point B.



Sagae teaches that the coil spring (14) is tightly fitted around the outside surface of the inner tube (1). See Sagae, at column 5, lines 57-59. Sagae further states that the reinforcing member (14) (i.e., the coil spring) is "secured in between the inner tube 1 and the tapered end portion of the outer tube 2. By this configuration, the reinforcing member 14 can be firmly fixed." Sagae, at column 6, lines 12-15 (emphasis added). Thus, the reinforcing member (14) is taught as being firmly secured to the inner tube (1) at Point A as indicated above.

As can be seen in FIG. 1 reproduced above, the reinforcing member (14) extends distally around the inner tube (1) to Point B as indicated above. The inner tube (1) is shown extending entirely through the reinforcing member (14), from a location proximal of the proximal end of the reinforcing member (14) to a location distal of the distal end of the reinforcing member (14). It would appear that at Point B the densely wound coil is tightly wrapped around the inner tube (1) and does not slide on the inner tube (1). Regardless of how the reinforcing member (14) is secured to the inner tube (1) at Point B, it is evident that if the inner tubular member (1) was pushed in the distal direction the coil spring would not stretch and the inner tubular member would not slide relative to the coil spring. This is apparent since moving the portion of the inner tube (1) which underlies the proximal densely wound portion of the coil spring (at Point A) would result in the portion of the inner tube (1) which underlies the distal densely wound portion of the coil spring (at Point B) to move an equal amount. As the distance between Point A and Point B does not change as the inner tube (1) is pushed in the distal direction, it follows that the coil spring would not stretch. Similarly, as the inner tube (1) is pushed in the distal direction, the

reinforcing member (14), which is “firmly fixed” to the inner tube (1) at Point A, would not slide relative to the inner tube (1). This is true at least because there is no other component in contact with the reinforcing member (14) which would impede equivalent movement of the reinforcing member (14) with movement of the inner tube (1). In other words, it is evident that no other component of the catheter shown in FIG. 1 would prevent the densely wound region of the reinforcing member (14) at Point B from tracking movement of the inner tube (1). Thus, the reinforcing member (14) would not move relative to the inner tube (1).

Furthermore, the reinforcing member (14) is taught as including two densely wound regions, one at Point A and one at Point B, which serve as radiopaque markers. See Sagae, at column 6, lines 2-11. The radiopaque markers (i.e., the densely wound regions of the reinforcing member) are located at known locations on the inner tube (1) within the dilatation element (3) “in order to facilitate monitoring the position of the dilatation element 3 through a fluoroscope.” Sagae, at column 5, line 61 through column 6, line 11. One skilled in the art would understand that, as used as a radiopaque marker, the reinforcing member (14) needs to be located at a known position on the inner tube (1) within the dilatation element (3) such that the operator can ascertain the exact location of the dilatation element (3) within a vessel lumen using fluoroscopy during a medical procedure. Consistent with this understanding, Sagae teaches that “the reinforcing member 14 has about the same length as the cylindrical portion 3a of the dilatation element 3 and is placed at the same position as the cylindrical portion 3a.” Sagae, at column 5, line 67 through column 6, line 2. Thus, one skilled in the art would understand that the reinforcing member (14) should not be movable relative to the inner tube (1) within the dilatation element (3), as movement of the radiopaque markers (i.e., the densely wound regions of the reinforcing member) would provide an inaccurate indication of the position of the dilatation element (3) within a vessel lumen. In this instance, movement of the reinforcing member (14) relative to the inner tube (1) would provide an inaccurate indication of the position of the cylindrical portion (3a) of the dilatation element (3) within a vessel lumen.

The above discussion is believed to clearly indicate that the reinforcing member (14) of Sagae does not slide relative to the inner tube (1). Instead, Sagae teaches that the reinforcing member (14) is “firmly fixed” to the inner tube (1), and thus when the inner tubular member (1) is pushed in the distal direction, the coil spring would not stretch and the inner tubular member would not slide relative to the coil spring. For at least these reasons claim 1 is believed to be

allowable over Sagae. Withdrawal of the rejection is respectfully requested.

Furthermore, for at least the reasons stated above, claims 2-4 and 6-10, which depend from claim 1 and include significant additional limitations, are believed to be allowable over Sagae. Withdrawal of the rejection is respectfully requested.

Claim 11 recites, “a reinforcing sleeve having an outer surface attached to the outer tube, slidably disposed over the guidewire tube, and extending distally into the inflation cavity.” In formulating the rejection, the inner tube (1) of Sagae is being equated to the claimed “guidewire tube” and the reinforcing member (14) of Sagae is being equated to the claimed “reinforcing sleeve”. As discussed previously, nowhere does Sagae teach or suggest the reinforcing member (14) slidably disposed over the inner tube (1). Therefore, for similar reasons given above, as well as others, claim 11 is believed to be allowable over Sagae. Withdrawal of the rejection is respectfully requested.

For at least the reasons stated above, claim 14, which depends from claim 11 and includes significant additional limitations, is believed to be allowable over Sagae. Withdrawal of the rejection is respectfully requested.

Claim 15 recites that “the third elongate member is slidingly disposed on the second elongate member.” In formulating the rejection, the inner tube (1) of Sagae is being equated to the claimed “second elongate member” and the reinforcing member (14) of Sagae is being equated to the claimed “third elongate member”. As discussed previously, nowhere does Sagae teach or suggest the reinforcing member (14) slidingly disposed on the inner tube (1). Therefore, for similar reasons given above, as well as others, claim 15 is believed to be allowable over Sagae. Withdrawal of the rejection is respectfully requested.

For at least the reasons stated above, claims 17-19 and 21-22, which depend from claim 15 and include significant additional limitations, are believed to be allowable over Sagae. Withdrawal of the rejection is respectfully requested.

Rejections under 35 U.S.C. § 103

Claim 5 was rejected under 35 U.S.C. §103(a) as being unpatentable over Sagae. Applicants respectfully traverse this rejection. For at least the reasons stated above, claim 5, which depends from claim 1 and includes significant additional limitations, is believed to be allowable over Sagae. Withdrawal of the rejection is respectfully requested.

Claims 12-13 and 20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Sagae in view of Kastenhofer, U.S. Patent No. 6,659,977. Applicants respectfully traverse this rejection. For at least the reasons stated above, claims 12 and 13, which depend from claim 11 and include significant additional limitations, are believed to be allowable over Sagae in view of Kastenhofer. Additionally, for at least the reasons stated above, claim 20, which depends from claim 15 and includes significant additional limitations, is believed to be allowable over Sagae in view of Kastenhofer. Withdrawal of the rejection is respectfully requested.

Reexamination and reconsideration are respectfully requested. It is respectfully submitted that all pending claims are now in condition for allowance. Issuance of a Notice of Allowance in due course is requested. If a telephone conference might be of assistance, please contact the undersigned attorney at (612) 677-9050.

Respectfully submitted,

Daniel Perreault et al.

By their Attorney,



Date: _____

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